

Application No. 10/694,244  
Amend. Dated: June 10, 2005

**IN THE CLAIMS:**

**Listing of the claims -**

1-36. (Cancelled)

37. (Currently Amended) A method for the anaerobic digestion of high-solids waste, the method comprising:

providing a closed container including

a first passage in which the waste material flows in a first direction, the first passage having first and second ends, the first end including an inlet for waste material, and

a second passage in which the waste material flows in a second direction opposite the first direction, the second passage having first and second ends, the second end including an outlet, the first passage being separated from the second passage by a divider, the second end of the first passage being adjacent the first end of the second passage, and the first end of the first passage being adjacent the second end of the second passage; and

using a heating device positioned in the first or second passage to induce the high-solids waste to move in a corkscrew-like fashion through at least one of the first passage and the second passage;

~~The method of claim 15,~~ further comprising using gas to facilitate the corkscrew-like flow path.

38. (Currently Amended) The method of claim ~~15~~ 37, wherein the heating device comprises heating pipes to enhance convection and facilitate the corkscrew-like flow path.

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39. (Currently Amended) A method for the anaerobic digestion of high-solids waste, the method comprising:

providing a closed container including

a first passage in which the waste material flows in a first direction, the first passage having first and second ends, the first end including an inlet for waste material, and

a second passage in which the waste material flows in a second direction opposite the first direction, the second passage having first and second ends, the second end including an outlet, the first passage being separated from the second passage by a divider, the second end of the first passage being adjacent the first end of the second passage, and the first end of the first passage being adjacent the second end of the second passage; and

using a heating device positioned in the first or second passage to induce the high-solids waste to move in a corkscrew-like fashion through at least one of the first passage and the second passage;

~~The method of claim 15~~, wherein the first passage and the second passage are separated by a center wall, the container has outside walls, and the center wall and outside walls are substantially planar and vertical.

40. (Previously Presented) The method of claim 39, wherein the heating device is positioned adjacent the center wall, and the heating device provides convective forces that cause heated sludge to rise near the center wall, while sludge near the relatively cooler outer wall falls under convective forces.

41. (Previously Presented) The method of claim 39, wherein the heating device is positioned adjacent one of the outside wall, and the heating device provides convective forces that cause heated sludge to rise over the outside wall, while sludge near the relatively cooler center wall falls under convective forces.

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42. (Previously Presented) The method of claim 40, wherein the heating device includes a conduit having at least one gas outlet positioned to promote upward movement of the heated waste material utilizing recycled biogas.

43. (Currently Amended) The method of claim ~~15~~ 37, wherein the heating device includes a conduit having at least one gas outlet positioned to promote upward movement of the heated waste material utilizing recycled biogas.

44. (Currently Amended) The method of claim ~~15~~ 37, wherein the heating device contains a heating medium.

45. (Previously Presented) The method of claim 44, wherein the heating medium comprises water.

46. (Previously Presented) The method of claim 44, wherein the heating medium comprises a gas.

47. (Currently Amended) A method for the anaerobic digestion of high-solids waste, the method comprising:

providing a closed container including

a first passage in which the waste material flows in a first direction, the first passage having first and second ends, the first end including an inlet for waste material, and

a second passage in which the waste material flows in a second direction opposite the first direction, the second passage having first and second ends, the second end including an outlet, the first passage being separated from the second passage by a divider, the second end of the first passage being adjacent the first end of the second passage, and the first end of the first passage being adjacent the second end of the second passage; and

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using a heating device positioned in the first or second passage to induce the high-solids waste to move in a corkscrew-like fashion through at least one of the first passage and the second passage;

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The method of claim 15, wherein the corkscrew-like fashion movement is established a mechanical device which moves in a corkscrew-like fashion without an auger.

48. (Currently Amended) The method of claim 47, further comprising positioning a liquid diffuser in the container to induce the corkscrew-like movement.

49. (Currently Amended) The method of claim 47, further comprising positioning a gas diffuser in the container to induce the corkscrew-like movement.

50. (Cancelled)

51. (Currently Amended) A method for the anaerobic digestion of high-solids waste, the method comprising:

positioning a liquid diffuser or gas diffuser in an anaerobic digestion container; and

using the diffuser to move the high-solids waste in a corkscrew-like flow path through at least a portion of the container. ~~The method of claim 30, wherein the a first passage and the a second passage are separated by a center wall, the container has outside walls, and the center wall and outside walls are substantially planar and vertical.~~

52. (Previously Presented) The method of claim 51, wherein the diffuser is positioned adjacent the center wall, and the diffuser provides forces that cause sludge to rise near the center wall, while sludge near the outer wall falls.

53. (Previously Presented) The method of claim 51, wherein the diffuser is positioned adjacent one of the outside walls and the diffuser provides forces that cause sludge to rise near the outer wall, while sludge near the center wall falls.